

DOCUMENT-IDENTIFIER: US 5792737 A

TITLE: Mild, aqueous, surfactant preparation for cosmetic purposes and as detergent

BSPR:

Betaines and, particularly amidopropyl betaines, are used as amphoteric surfactants especially for hair preparations and in cleansing agent preparations for the skin, such as shampoos, foam gels and shower gels, which are gentle on the skin, and for intimate and body cosmetics. In addition to other desirable properties, they improve the dermatological properties of anionic and nonionic surfactants and cause the skin to feel pleasant. Furthermore, the betaines can also be used to advantage in cleansing agents, such as dish rinsing aids and detergents for delicate fabrics.

BSPR:

Even though mild surfactant formulations can be prepared with amidopropyl betaines of coconut oil fatty acids, conventional, commercial, aqueous solutions of the betaine or their dilutions with water have a distinct irritant potential, which can be determined in tests on the skin and mucous membranes, and also by modern in vitro test methods for determining the irritant effect, such as the erythrocyte test.

BSPR:

It is therefore an object of the invention to find exceptionally mild, low-irritant preparations, which satisfy the demands of high skin compatibility.

BSPR:

The inventive preparations may contain anionic surfactants. As suitable anionic surfactants, particularly alkyl ether sulfate and furthermore monoglyceride sulfates, alkyl ether carboxylic acids and their alkali salts may be mentioned as mild, skin-compatible detergents.

BSPR:

Long-chain acyl sarcosinates or their alkali salts, such as sodium lauroyl sarcosinate, are a further preferred class of anionic surfactants.

BSPR:

Although alkyl polyglucosides of the above-named general formula are preferred as nonionic surfactants in the inventive compositions, it is also possible to use other nonionic surfactants instead of the ones mentioned or preferably a mixture thereof. Such other nonionic surfactants are, for example, fatty acid esters of multihydric alcohols, such as glycerin, fatty acid polyglycol esters, fatty alcohol ethoxylates and mixed products of ethylene oxide and propylene oxide. Other nonionic surfactant components may be amine oxides and fatty acid monoalkanolamides and dialkanolamides.

DEPR:

The Table shows that the irritating action of the betaines on the skin and mucous membrane increases with the length of the alkyl chain. The short-chain fatty acid amidopropyl betaines, which are derived from caprylic and capric acids, exert practically no irritating effect.

DEPR:

sodium lauroyl sarcosinate (NaLSC), commercially obtainable under the name of Hamosyl L 30 (Grace); and

DEPR:

Mild surfactant formulations are produced from C.sub.8 /C.sub.10 betaine and three other surfactants, which are described in Example 3. The formulations contain 5 to 10% C.sub.8 /C.sub.10 betaine and 10 to 5% of the disodium salt of lauryl sulfosuccinate (LSSDNa), sodium lauroyl sarcosinate (NaLSC) or sodium lauryl polyglucoside (APG). Those which contain 10% C.sub.8 /C.sub.10 betaine, are identical with the ones described in Example 3. The formulations are tested with the RBC test for their physiological compatibility. The results are shown in Table 4.

instructed to mark the scale at a point which she felt corresponded to the level of itchiness that she was feeling at the treatment site at the appropriate time. The samples were coded so that the subject was not aware of what a given sample was and she was not told if they were expected to have an effect. She carried out the evaluation unaided, applying the samples in any order she chose except where side-by-side comparisons were made as indicated in the tables. From the marked scale the pruritic score was determined as the number of mm from the left side of the scale to the subject's mark. Thus a higher value indicates a high level or pruritus and a low value indicates a low level to no pruritus. Tables 1a through 1c show the antipruritic effect of water-based emulsion preparations.

## DEPR:

This example illustrates the antipruritic effect of vitamin D.sub.3 formulated in oil-based preparations in alleviating the pruritus caused by poison ivy.

## DEPR:

This example illustrates the antipruritic effect of vitamin D.sub.3 formulated in a water-based suspension in alleviating the pruritus caused by poison ivy.

## DEPR:

The patient must be suffering from chronic kidney failure and be experiencing bothersome itchiness at the time of the office visit. The patient will be asked if they would like to volunteer to try this new treatment. It will be explained that this is a trial of a cream that relieves itchiness in chickenpox and poison ivy and that it may or may not help them.

## CLPR:

7. The method according to claim 6 wherein the pruritus results from a condition selected from the group consisting of chickenpox, shingles, plant toxins, insect bites, chronic kidney failure, liver diseases, malabsorption syndromes, HIV infection, AIDS related cosinophilic pustular folliculitis, psoriasis, atopic dermatitis, photosensitivity disorders, lichen planus, polycythemia vera, Grover's disease, glaucoma annular, lichen nitidus, prurigo nodularis, macular amyloidosis, urticaria pigmentosa, aquagenic pruritus, pemphigus vulgaris, lupis vulgaris, healing cuts and burns, senile pruritus, hypereosinophilic syndrome, chronic uticaria, pruritic eye conditions, stress, and combinations thereof.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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Terms	Documents
15 and (poison ivy or poison oak or urushiol)	2

including document number

**Display Format:**



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the alk(en)yl moiety and m and n represent weight-averages in the range 0-80 and 2-80 respectively. Shorter chain length alkyl groups are generally to be avoided for efficacy reasons and because unreacted fatty alcohol in such surfactants is a source of malodour and occasionally of skin irritation. It will be understood that surfactants of this type are usually mixtures of varying degrees of ethoxylation/propoxylation, accordingly m and n represent the respective weight-averages of the number of propoxylate and ethoxylate groups. Nonionic surfactants of the above general type include mixed alkoxylates in which m and n are both in the range from about 2 to about 80, with m preferably being in the range from about 2 to about 20, more preferably from about 3 to about 10 and with n preferably being in the range from about 2 to about 60, more preferably from about 5 to about 50. One such material is PPG-5-ceteth-20 (available from Croda Inc as Procetyl AWS), where m and n have the values 5 and 20 respectively. Other suitable nonionic surfactants include polyethoxylated surfactants, e.g. ethoxylated alkylphenol ethers, particularly octyl- and nonylphenol ethers containing 8-16 EO; ethoxylated aliphatic C.sub.8 -C.sub.20 alcohols, which may be linear or branched and contain 8-16, preferably 9-15 EO; and ethoxylated hydrogenated castor oils.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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☐ 5. Document ID: US 5833999 A

Entry 5 of 31

File: USPT

Nov 10, 1998

DOCUMENT-IDENTIFIER: US 5833999 A

TITLE: Personal treatment compositions and /or cosmetic compositions containing enduring perfume

ABPL:

Personal treatment compositions including leave-on hair care compositions and leave-on skin care compositions, comprising from about 0.001% to about 50%, preferably from about 0.005% to about 6%, enduring perfume, are disclosed. The enduring perfume provides a lasting olfactory sensation thus minimizing the need to use large amounts.

BSPR:

The present invention relates to personal cleansing and/or cosmetic compositions containing enduring perfumes which are less likely to irritate skin and which provide efficient and long lasting perfume benefit, even after rinsing.

BSPR:

Perfume in personal cleansing and cosmetic products provides olfactory aesthetic benefit and/or serves as a signal of cleanliness. These are especially important functions of these personal care products. Personal care products generally include "rinse-off" products, such as soaps, liquid soaps, shampoos, hair conditioners, etc., which are applied to, e.g., skin or hair and then rinsed off from the skin or hair, and "leave-on" products, such as skin moisturizers, sun screen products, deodorants, hair sprays, mousse, etc., which are applied and are normally allowed to remain on, e.g., skin or hair.

BSPR:

Continuous efforts are made to find improvements in both perfume delivery effectiveness and longevity on the body (e.g., skin and hair). During a cleansing process, a substantial amount of perfume in the personal cleanser compositions is lost with the rinse water and in the subsequent drying. On the other hand, some products, especially leave-on and cosmetic products can leave a considerable amount of material, including perfume material, on the body. It is extremely important that any material left on the body provide the maximum effect with the minimum amount of material, and that the material be as safe and non-irritating as possible.

BSPR:

People skilled in the perfume art, usually by experience, have some knowledge of some particular perfume ingredients that are "substantive" and/or non-irritating. Substantive perfume ingredients are those odorous compounds that effectively deposit on skin or hair in the cleaning process and are detectable on the

subsequently dried skin or hair by people with normal olfactory acuity. The knowledge of what perfume ingredients are substantive is spotty and incomplete.

BSPR:

The object of this invention is to provide personal cleansing compositions containing enduring perfumes which are effectively retained and remain on the skin or hair for a long lasting aesthetic benefit with minimum amount of material, and not lost and/or wasted in the cleaning and drying steps. It is also an object to provide perfumes that are non-irritating insofar as that is possible.

BSPR:

Some of these cleansing compositions are meant to be used and then rinsed off. The enduring perfume compositions are desirable for such personal cleansing compositions that are intended to be rinsed off, since the enduring perfume compositions deposit extremely efficiently. In another aspect, enduring perfume compositions are used in other personal treatment compositions, including cosmetics, skin treatment compositions, and/or cleansing compositions that are meant to be left on the skin, or simply wiped off, thereby leaving a substantial amount of material on the skin. The enduring perfume compositions are extremely desirable for such personal treatment compositions since they require minimal material to provide long lasting effects even when the skin is in contact with the water, as when swimming. Personal treatment compositions such as deodorants, perfumes, colognes, suntan lotions, skin softening lotions, etc., which are meant to leave relatively large amounts of material on the skin, are especially improved by use of these enduring perfume compositions, since they minimize the amount of material in contact with the skin.

BSPR:

The present invention also relates in one aspect to personal treatment compositions, e.g., those selected from the group consisting of: deodorants; antiperspirants; skin lotions; suntan lotions; perfumes, and colognes, all of which are normally applied to one, or more, parts of the body and incompletely removed, said personal treatment compositions containing an effective amount of said enduring perfume compositions.

BSPR:

Thus, when a perfume composition which is composed of ingredients having a B.P. of about 250.degree. C. or higher and a ClogP of about 3 or higher, is used in a liquid personal cleansing composition, the perfume is very effectively deposited on skin or hair, and remains substantive after the rinsing and drying steps. Also, surprisingly, these same perfume compositions are very mild to skin and are relatively non-irritating, even on leave-on products.

BSPR:

Table 1 gives some non-limiting examples of enduring perfume ingredients, useful in liquid personal cleansing compositions of the present invention. The enduring perfume compositions of the present invention contain at least about 3 different enduring perfume ingredients, more preferably at least about 4 different enduring perfume ingredients, and even more preferably at least about 5 different enduring perfume ingredients. Furthermore, the enduring perfume compositions of the present invention contain at least about 60 wt. % of enduring perfume ingredients, preferably at least about 70 wt. % of enduring perfume ingredients, more preferably at least about 80 wt. % of enduring perfume ingredients, and even more preferably at least about 85 wt. % of enduring perfume ingredients. Personal cleansing compositions of the present invention contain from about 0.001% to about 10%, preferably from about 0.005% to about 6%, more preferably from about 0.01% to about 4%, and even more preferably from about 0.01% to about 1%, of an enduring perfume composition. Hair care and topical skin care compositions that are not normally rinsed off can contain from 0.001% to about 50%, preferably from about 0.001% to about 15%, more preferably from about 0.005% to about 6%, most preferably from about 0.01% to about 4%, and yet more preferably from about 0.01% to about 1%, of said enduring perfume compositions. The high levels are associated mainly with body perfumes, such as fine fragrances, eau de toilette, eau de cologne, etc.

BSPR:

a. Alkyl phenol ethoxylates. The polyethylene oxide condensates of alkyl phenols, e.g., the condensation products of alkyl phenols having an alkyl group containing

from about 6 to 12 carbon atoms in either a straight chain or branched chain configuration, with ethylene oxide, the said ethylene oxide being present in amounts equal to 10 to 60 moles of ethylene oxide per mole of alkyl phenol. The alkyl substituent in such compounds can be derived from polymerized propylene, diisobutylene, octane, or nonane, for example.

BSPR:

c. Fatty alcohol and fatty acid ethoxylates. The condensation product of aliphatic alcohols having from 8 to 18 carbon atoms, in either straight chain or branched chain configuration with ethylene oxide, e.g., a coconut alcohol ethylene oxide condensate having from 10 to 30 moles of ethylene oxide per mole of coconut alcohol, the coconut alcohol fraction having from 10 to 14 carbon atoms. Other ethylene oxide condensation products are ethoxylated fatty acid esters of polyhydric alcohols (e.g., Tween 20-polyoxyethylene (20) sorbitan monolaurate).

BSPR:

The present invention, especially in the aspect relating to personal cleansing compositions that are normally rinsed, like shampoos and personal skin cleansers, comprises from about 0.01% to about 95%, preferably from about 5% to about 85%, more preferably from about 3% to about 30%, even more preferably from about 5% to about 22% of a surfactant system. This surfactant system comprises anionic, nonionic, cationic, and/or zwitterionic type surfactants as described hereinbefore. For non-shampoo surfactant systems the surfactant system typically comprises at least one surfactant selected from the group consisting of soap, acylglutamates, alkyl sarcosinates, alkylpolyethyleneglycol sulfates, alkylglyceryl ether sulfonates, and/or acyl isethionates.

BSPR:

The present compositions are used in a conventional manner for cleaning hair, controlling dry skin on the scalp, and to provide olfactory aesthetic benefit. The compositions hereof can also be effective for cleaning the skin (e.g., the body in general, including the underarm and crotch areas). An effective amount of the composition, typically from about 1 g to about 20 g of the composition, for cleaning hair or other region of the body, is applied to the hair or other region that has preferably been wetted, generally with water, and then rinsed off. Application to the hair typically includes working the composition through the hair such that most or all of the hair is contacted with the composition. After the rinse step, the wet hair is normally dried, e.g., with an electric hair dryer.

BSPR:

The present compositions are used in a conventional manner for cleaning the skin and/or the body, and to provide olfactory aesthetic benefit. An effective amount of the composition, typically from about 1 g to about 15 g of the composition, is applied to the body that has preferably been wetted, generally with water. Application to the body includes dispensing of the composition onto the hand, onto the body, or onto a washing implement, e.g., wash cloth, sponge, etc., and typically includes working the composition with the hands to develop lather. The lather can stand on the body for a length of time or can be rinsed immediately with water. Once the product is rinsed from the body the washing procedure can be repeated.

BSPR:

The enduring perfumes of the present invention can be formulated into a wide variety of product types which are not normally removed by rinsing, including hair conditioner, hair spray, hair gel, hair tonic, mousse, hair curler, hair straightener, deodorant, antiperspirant, skin lotion, skin moisturizer, skin softening lotion, suntan lotion, sun screen lotion, sunless tanning composition, skin bleaching composition, perfume, cologne, topical pharmaceutical skin care composition, e.g., anti-acne composition, non-steroidal anti-inflammatory composition, steroidal anti-inflammatory composition, antipruritic composition, anesthetic composition, antimicrobial composition, and the like. The additional components required to formulate such products vary with product type and can be routinely chosen by one skilled in the art. The following is a description of some of these compositions and additional components.

BSPR:

The hair care compositions of the present invention can comprise a carrier, or a

mixture of such carriers, which are suitable for application to the hair. The carriers are present at from about 0.5% to about 99.5%, preferably from about 5.0% to about 99.5%, more preferably from about 10.0% to about 98.0%, of the composition. As used herein, the phrase "suitable for application to hair" means that the carrier does not damage or negatively affect the aesthetics of hair or cause irritation to the underlying skin.

BSPR:

The topical cosmetic and pharmaceutical compositions of the present invention can comprise a carrier. The carrier should be "cosmetically and/or pharmaceutically acceptable", which means that the carrier is suitable for topical application to the skin, has good aesthetic properties, is compatible with the copolymers of the present invention and any other components, and will not cause any untoward safety or toxicity concerns.

BSPR:

The carrier can be in a wide variety of forms. For example, emulsion carriers, including, but not limited to, oil-in-water, water-in-oil, water-in-oil-in-water, and oil-in-water-in-silicone emulsions, are useful herein. These emulsions can cover a broad range of viscosities, e.g., from about 100 cps to about 200,000 cps. These emulsions can also be delivered in the form of sprays using either mechanical pump containers or pressurized aerosol containers using conventional propellants. These carriers can also be delivered in the form of a mousse. Other suitable topical carriers include anhydrous liquid solvents such as oils, alcohols, and silicones (e.g., mineral oil, ethanol, isopropanol, dimethicone, cyclomethicone, and the like); aqueous-based single phase liquid solvents (e.g., hydro-alcoholic solvent systems); and thickened versions of these anhydrous and aqueous-based single phase solvents (e.g., where the viscosity of the solvent has been increased to form a solid or semi-solid by the addition of appropriate gums, resins, waxes, polymers, salts, and the like). Examples of topical carrier systems useful in the present invention are described in the following four references all of which are incorporated herein by reference in their entirety: "Sun Products Formulary" Cosmetics & Toiletries, vol. 105, pp. 122-139 (December 1990); "Sun Products Formulary", Cosmetics & Toiletries, vol. 102, pp. 117-136 (March 1987); U.S. Pat. No. 4,960,764 to Figueroa et al., issued Oct. 2, 1990; and U.S. Pat. No. 4,254,105 to Fukuda et al., issued Mar. 3, 1981.

BSPR:

The carriers of the skin care compositions can comprise from about 50% to about 99% by weight of the compositions of the present invention, preferably from about 75% to about 99%, and most preferably from about 85% to about 95%.

BSPR:

Preferred cosmetically and/or pharmaceutically acceptable topical carriers include hydro-alcoholic systems and oil-in-water emulsions. When the carrier is a hydro-alcoholic system, the carrier can comprise from about 1% to about 99% of ethanol, isopropanol, or mixtures thereof, and from about 1% to about 99% of water. More preferred is a carrier comprising from about 5% to about 60% of ethanol, isopropanol, or mixtures thereof, and from about 40% to about 95% of water. Especially preferred is a carrier comprising from about 20% to about 50% of ethanol, isopropanol, or mixtures thereof, and from about 50% to about 80% of water. When the carrier is an oil-in-water emulsion, the carrier can include any of the common excipient ingredients for preparing these emulsions. In fine fragrances, the carrier is typically ethanol at levels of from about 50% to about 85%, whereas in colognes, the carrier level is even higher, e.g., from about 80% to about 95%.

BSPR:

This gelling agent offers significant benefits when used in an antiperspirant gel stick. The gelling agent of the present invention exhibits unexpected benefits, e.g., decreased residue upon application to the skin, increased hardness and better aesthetics, relative to a similar composition having either of the two gellants alone. In fact, these gellants in combination are more effective than either alone so that the overall level of gelling agent within the composition can be reduced while maintaining such desirable stick characteristics.

BSPR:

The liquid base matrix of antiperspirant stick compositions of the present invention is formed by combining the gelling agent with a liquid base material.

As used herein, the term "liquid" refers to materials which are liquids at ambient conditions and the term "liquid base material" includes all liquids within the composition. It is important that the liquid base material be of a type, and used at a level sufficient to solubilize the gelling agent when heated, to permit substantially uniform mixing of the antiperspirant active into the heated solution at the mixing temperature, and form a stick when cooled to ambient temperature. The liquid base material should be compatible with the gelling agent so that the mixture of the two remains homogeneous and does not phase separate during manufacturing and so that the finished product remains homogeneous and does not phase separate at ambient conditions over the normal shelf-life which may be upwards of one year. Furthermore, the liquid base materials are typically selected to provide aesthetic benefits, such as emolliency, low tack or minimized visible residue, without significant interference with the effectiveness of the antiperspirant active component. Lastly, the particular liquid base material should be safe for application to human skin.

BSPR:

Additional components useful in formulating these topical compositions are further described below.

BSPR:

A wide variety of additional components can be employed in the hair care and topical skin compositions herein. Non-limiting examples include the following:

BSPR:

The compositions of the present invention, especially the topical skin care compositions, can comprise a safe and effective amount of a pharmaceutical active. The phrase "safe and effective amount", as used herein, means an amount of an active high enough to significantly or positively modify the condition to be treated, but low enough to avoid serious side effects (at a reasonable benefit/risk ratio), within the scope of sound medical judgement. A safe and effective amount of the pharmaceutical active will vary with the specific active, the ability of the composition to penetrate the active through the skin, the amount of composition to be applied, the particular condition being treated, the age and physical condition of the patient being treated, the severity of the condition, the duration of the treatment, the nature of concurrent therapy, and like factors.

BSPR:

Still other useful sunscreens are those disclosed in U.S. Pat. No. 4,937,370, to Sabatelli, issued Jun. 26, 1990; and U.S. Pat. No. 4,999,186, to Sabatelli et al., issued Mar. 12, 1991; these two references are incorporated by reference herein in their entirety. The suncreening agents disclosed therein have, in a single molecule, two distinct chromophore moieties which exhibit different ultra-violet radiation absorption spectra. One of the chromophore moieties absorbs predominantly in the UVB radiation range and the other absorbs strongly in the UVA radiation range. These suncreening agents provide higher efficacy, broader UV absorption, lower skin penetration and longer lasting efficacy relative to conventional sunscreens. Especially preferred examples of these sunscreens include those selected from the group consisting of 4-N,N-(2-ethylhexyl)methylaminobenzoic acid ester of 2,4-dihydroxybenzophenone, 4-N,N-(2-ethylhexyl)methylaminobenzoic acid ester with 4-hydroxydibenzoylmethane, 4-N,N-(2-ethylhexyl)methylaminobenzoic acid ester of 2-hydroxy-4-(2-hydroxyethoxy)benzophenone, 4-N,N-(2-ethylhexyl)-methylaminobenzoic acid ester of 4-(2-hydroxyethoxy)dibenzoylmethane, and mixtures thereof.

BSPR:

A variety of additional components can be incorporated into the non-rinsed compositions herein. Non-limiting examples of these additional components include vitamins and derivatives thereof (e.g., ascorbic acid, vitamin E, tocopheryl acetate, retinoic acid, retinol, retinoids, and the like); low pH thickening agents (e.g. polyacrylamide and C.sub.13-14 isoparaffin and laureth-7, available as Sepigel from Seppic Corporation; polyquaternium and mineral oil, available as Salcare SC92, from Allied Colloids; crosslinked methyl quaternized dimethylaminomethacrylate and mineral oil, available as Salcare SC95 from Allied Colloids; resins; gums and thickeners such as xanthan gum, carboxymethyl cellulose, hydroxymethyl cellulose, hydroxyethyl cellulose, alkyl-modified

hydroxyalkyl celluloses (e.g. long chain alkyl modified hydroxyethyl celluloses such as cetyl hydroxyethylcellulose), and magnesium aluminum silicate; cationic polymers and thickeners (e.g., cationic guar gum derivatives such as guar hydroxypropyltrimonium chloride and hydroxypropyl guar hydroxypropyltrimonium chloride, available as the Jaguar C series from Rhone-Poulenc; polymers for aiding the film-forming properties and substantivity of the composition (such as a copolymer of eicosene and vinyl pyrrolidone, an example of which is available from GAF Chemical Corporation as Ganex.RTM. (V-220); suspending agents such as ethylene glycol distearate and the like; preservatives for maintaining the antimicrobial integrity of the compositions; skin penetration aids such as dimethylsulfoxide (DMSO), 1-dodecylazacycloheptan-2-one (available as Azone from the Upjohn Co.) and the like; antioxidants; chelators and sequestrants; and aesthetic components such as fragrances, colorings, essential oils, skin sensates, astringents, skin soothing agents, skin healing agents and the like, nonlimiting examples of these aesthetic components include panthenol and derivatives (e.g. ethyl panthenol), pantothenic acid and its derivatives, clove oil, menthol, camphor, eucalyptus oil, eugenol, menthyl lactate, witch hazel distillate, allantoin, bisabolol, dipotassium glycyrrhizinate and the like. Other useful actives include skin bleaching (or lightening) agents including but not limited to hydroquinone, ascorbic acid, kojic acid and sodium metabisulfite. Actives which are especially useful for hair care compositions include anti-dandruff actives such as zinc pyrithione, octopirox, selenium disulfide, sulfur, coal tar, and the like, and hair curling and/or straightening actives as are well known in the art.

#### BSPR:

The hair care and skin care compositions of the present invention are used in conventional ways to provide the desired benefit appropriate to the product such as hair styling, holding, cleansing, conditioning and the like for hair care compositions and benefits such as moisturization, sun protection, anti-acne, anti-wrinkling, artificial tanning, analgesic, and other cosmetic and pharmaceutical benefits for skin care compositions. Such methods of use depend upon the type of composition employed but generally involve application of an effective amount of the product to the hair or skin, which can then be allowed to remain on the hair (as in the case of spray, mousse, or gel products), or allowed to remain on the skin (as in the case of the skin care compositions). By "effective amount" is meant an amount sufficient to provide the benefit desired. Preferably, mousse, and gel products are applied to wet or damp hair prior to drying and styling of the hair. After such compositions are applied to the hair, the hair is dried and styled in the usual ways of the user. Hair sprays are typically applied to dry hair after it has already been dried and styled. Cosmetic and pharmaceutical topical skin care compositions are applied to and rubbed into the skin.

#### BSPL:

### II. Topical Skin Care Compositions

#### BSPL:

### Method of Using Non-Rinsed Hair and Skin Care Compositions

#### BSPC:

### C. Hair Care And Topical Skin Care Compositions Which Are Not Normally Rinsed (Removed)

#### DEPR:

The products provide excellent in-use and efficacy benefits including cleansing and lathering together with improved mildness and skin conditioning (hydration, suppleness, etc.), and especially long lasting perfume benefit.

#### DEPR:

The composition display skin penetration of the salicylic acid as well as improved skin feel and residue characteristics and is useful for the treatment of acne.

#### DEPR:

A topical analgesic composition is made by combining the following ingredients utilizing conventional mixing techniques.

#### DEPR:

The compositions display skin penetration of the ibuprofen active as well as



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☐ 1. Document ID: US 5908617 A

Entry 1 of 31

File: USPT

Jun 1, 1999

DOCUMENT-IDENTIFIER: US 5908617 A

TITLE: Mild shower gel composition comprising unique thickener system which imparts improved lathering properties and modified rinse feel

ABPL:

A mild liquid skin cleanser composition with improved lathering and rinsing characteristics, comprising: an alkyl ethoxylated sulfate anionic surfactant having an average degree of ethoxylation of at least about 2.0; an amphoteric surfactant selected from the group consisting of betaine surfactants, imidazoline surfactants, aminoalkanoate surfactants, and iminodialkanoate surfactants, and mixtures thereof; an N-acylamino acid surfactant, or salt thereof; a cationic cellulose ether derivative; from 0.2 parts to 2.0 parts by weight of a C8 to C20 fatty alcohol; and from 0.1 parts to 5 parts by weight of a water insoluble salt of C14-C22 fatty acid.

BSPR:

The cleaning of skin with surface-active cleansing preparations is the basis for the personal cleansing consumer market world-wide. Many people wash their skin with various surface-active preparations several times a day, with frequent whole body exposure to these compositions (e.g. bathing or showering). Traditionally, consumers were offered these cleansing compositions in the form of a solid "bar" comprised of either alkali earth salts of fatty acids (soap) or mixed synthetic surfactant/soap systems. While these products provide acceptable cleansing of skin and performance properties (e.g. lather), they possess certain properties which give rise to specific consumer negatives in terms of product messiness during use and irritation to skin (e.g. drying). These specific consumer negatives have been partially addressed through the introduction of liquid personal cleanser compositions in the form of shower gels. However, these shower gel products while addressing messiness and mildness needs of the consumer, often fail to meet other consumer performance needs, specifically high lather and soap-like rinse feel. A shower gel composition delivering high mildness, high lather, and rinsing properties more soap-like would be very desirable.

BSPR:

Skin cleansing compositions should lather and rinse, cleanse the skin gently, causing little or no irritation, without drying the skin after frequent routine use. Certain synthetic surfactants and surfactant systems formulated for skin cleansing are particularly mild, however, they possess poor lather performance and slick rinse-feel attributes. Other surfactants and surfactant systems (for

example, soap-based system) provide good lather and rinsing performance, but are not exceptionally mild to the skin. Additionally, these formulations require a thickening agent, often some polymeric component, along with high levels of salt to produce consumer acceptable product viscosities. This thickening approach can cause the product to exhibit dramatic viscoelastic properties during use and impact other product performance attributes (e.g. ease of lathering). In addition, polymeric thickeners can be costly and exhibit base odors.

**BSPR:**

Optimization of any single product attribute (e.g. lather, mildness, rinse feel, viscosity), is a relatively straightforward process. There are numerous combinations of surfactants and other components which can be utilized to generate a product which delivers against any of the aforementioned attributes. The use of known high sudsing anionic surfactants with lather boosters yields acceptable lather volume. Unfortunately, highest sudsing anionic surfactants are, generally, also highest in skin irritation and, hence, worst in clinical mildness. Surfactants that are among the mildest with minimal skin irritation, such as ammonium lauryl ether (12EO) sulfate (NH<sub>4</sub>AE12S) are extremely poor in lather. These two facts alone make the selection of surfactants for optimization of lather performance, in and of itself, a delicate balancing act and becomes even more complex when the other product attributes must be optimized as well. See, e.g., U.S. Pat. Nos. 4,338,211, Stiros, issued Jul. 6, 1982; 4,310,433, Stiros, issued Jan. 12, 1982; and 4,842,850, Vu, issued Jun. 27, 1989, all of said patents being incorporated herein by reference.

**BSPR:**

The present invention offers a valuable combination of desirable properties to liquid skin-cleansing formulations in terms of product mildness, lathering, and rinse-feel.

**BSPR:**

Therefore, one object of this invention is the development of liquid skin-cleansing compositions which exhibit good mildness with good cleaning and improved lathering in terms of both amount and creaminess.

**BSPR:**

Another object of the present invention is the development of low cost liquid skin cleansers which deliver rinse-feel attributes more similar to that experience with bar soap usage.

**BSPR:**

A mild liquid skin cleanser composition with improved lathering and rinsing characteristics, comprising: an allyl ethoxylated sulfate anionic surfactant having an average degree of ethoxylation of at least about 2.0; an amphoteric surfactant selected from the group consisting of betaine surfactants, imidazoline surfactants, aminoalkanoate surfactants, and iminodialkanoate surfactants, and mixtures thereof; an N-acylamino acid surfactant, or salt thereof; a cationic cellulose ether derivative; from 0.2 parts to 2.0 parts by weight of a C8 to C20 fatty alcohol; and from 0.1 parts to 5 parts by weight of a water insoluble salt of C14-C22 fatty acid.

**BSPR:**

A liquid skin cleanser composition with improved mildness and lathering characteristics, comprising:

**BSPR:**

Foam enhancers are well known in the art. Polyquaternium-10 (an industry term designated by the Cosmetic, Toiletry and Fragrance Association (CFTA) for a polymeric quaternary ammonium salt of hydroxyethyl cellulose reacted with a trimethyl ammonium substituted epoxide is a preferred polymer for foam enhancement. In addition, polyquaternium-10 has also been shown in prior art to provide a skin mildness benefit by reducing irritation potential of the surfactant. Polyquaternium-10 is commercially available from Union Carbide Corp. (Danbury, Conn., USA) under their UCARE POLYMER JR series of materials, e.g., UCARE POLYMER JR-30M, JR-125, and JR400.

**BSPR:**

The mild personal liquid cleanser hereof is substantially free of alkyl sulfate surfactants since alkyl sulfates are relatively harsh to the skin. It is

recognized that there will generally be some alkyl sulfate present as a result of it being present in commercially available alkyl ethoxylated sulfate raw materials. For example, commercially available alkyl (3) ethoxylated sulfate typically contains about 20 parts by weight alkyl sulfate; commercially available alkyl (2) ethoxylated sulfate, about 25 parts to about 40 parts alkyl sulfate. For purposes hereof, substantially free of alkyl sulfate means the compositions hereof should have an alkyl sulfate:alkyl ethoxylated sulfate (average degree of ethoxylation of 2.5 and above) weight ratio of no more than about 0.35, preferably no more than about 0.30, more preferably no more than about 0.25. For alkyl ethoxylated sulfate with an average ethoxylation level of less than 2.5, the ratio should be no more than about 0.40, preferably no more than about 0.35, more preferably no more than about 0.30, most preferably no more than about 0.25. It is preferred that no additional amount of alkyl sulfate be added other than that which occurs inherently with the alkyl ethoxylated sulfate.

BSPR:

Narrow range ethoxylates can be used to lower the alkyl sulfate:alkyl ethoxylated sulfate weight ratio. "Narrow range ethoxylates" refer to alkyl ethoxylated sulfate surfactants that have been processed to reduce alkyl sulfates and, optionally, alkyl ethoxylated sulfates outside of the desired range of ethoxylation. The use of narrow range ethoxylates can be used to lower the alkyl sulfate:alkyl ethoxylated sulfate weight ratio, including to ratios as low as about 0.2 or even about 0.1, and less.

BSPR:

It is also preferred that no other ingredients that are unduly harsh to the skin be added to the mild mild personal liquid cleanser compositions hereof.

BSPR:

An optional component hereof is a soluble conditioning agent suitable for conditioning hair or skin. Skin conditioning proteolytic enzyme can also be used.

BSPR:

The skin cleansers herein can contain a variety of nonessential, optional ingredients suitable for improving such compositions in a variety of ways. Such conventional, optional ingredients are well known to those skilled in the art, e.g., antibacterial agents and preservatives such as DMDM Hydantoin, benzyl alcohol, methyl paraben, propyl paraben, 3-isothiazolines (Kathon CG sold by Rohm and Haas), imidazolidinyl urea, methylchloroisothiazolinone, and methylisothiazolinone can be used in amounts of from 1 to 5,000 ppm; final viscosity adjusters such as sodium sulfate, sodium chloride, propylene glycol; suspending agents such as magnesium/aluminum silicate; perfumes, dyes; opacifiers such as ethylene glycol distearate, glycol monostearate, styrene acrylate copolymer, mica, behenic acid, and calcium stearate; sequestering agents such as disodium ethylenediamine tetraacetate; emollients, moisturizers and various other skin treating ingredients such as glycerin; buffers and builders such as citrates and phosphates. If present, such agents individually generally comprise from about 0.01% to about 5% by weight of the composition.

BSPR:

A body puff or sponge which is made of nylon mesh in the shape of a round sponge (about 4.5 inches in diameter) which when used in conjunction with this invention, is an effective system which enhances the delivery of mild skin cleansing and skin conditioning benefits. Such a puff is manufactured by the sponge factory (Bilange). The puff is comprised of three pieces of extruded tubular netting (scrim) which is folded numerous times to form a soft ball-like sponge, with a nylon rope attached. A suitable system of this type is disclosed in U.S. patent application Ser. No. 08/080,668, filed Jun. 18, 1993, Gordon, et al. Similar sponges can also be used.

BSPR:

In its method aspect, the present invention comprises a method of washing the skin by contacting the skin with an amount of the cleanser compositions herein which is effective to clean the skin and rinsing the excess cleanser from the skin. An effective amount for any individual will depend upon variable factors such as amount of soil on the skin, type of soil on the skin, level of surfactant in the cleanser composition, etc. Generally, an effective amount will be from about 0.5 to about 7 grams per use. A preferred method of use is with the body

sponge implement.

BSPU:

9. Add sodium lauroyl sarcosinate and EDTA.

BSTL:

	Parts, by weight
composition comprises: Cocamidopropyl Betaine 4-6 Sodium Laureth Sulfate 5-7	
Sodium Lauroyl Sarcosinate	0.3-0.7 Polyquaternium 10
Alcohol 0.25-0.75	Zinc Stearate 1-2 Glycol Distearate 0.2-0.4
Sodium Sulfate 0.4-0.6	Cocamidopropyl Betaine 0.1-0.3 Lauramide DEA 0.3-0.6
Sulfate 0.05-1.5	Citric Acid 0.05-0.2 DMDM Hydantoin 0.2 Tetra Sodium EDTA 0.1
Fragrance 0.2-1.0	Water Q.S. Viscosity (cps) 5,000-11,000.

A highly preferred mild liquid personal cleansing composition is: Cocamidopropyl Betaine 5.15 Sodium Laureth Sulfate 5.8 Sodium Lauroyl Sarcosinate 0.5 Polyquaternium 10 0.1 C12/14 Fatty Alcohol 0.45 Zinc Stearate 1.5 Glycol Distearate 0.25 Sodium Lauryl Sulfate 0.53 Cocamidopropyl Betaine 0.17 Lauramide DEA 0.48 Sodium Sulfate 0.05-1.5 Citric Acid 0.05-0.2 DMDM Hydantoin 0.2 Tetra Sodium EDTA 0.1 Fragrance 0.2-1.0 Water Q.S. Viscosity (cps) 5,000-11,000.

DETL:

TABLE 2	Comparative Experimental Example 1
Example 5	Cocamidopropyl Betaine 5.15 5.15
Sodium Laureth Sulfate 5.8	5.8 Sodium Lauroyl Sarcosinate 0.5
0.1 0.1 Polyol Alkoxy Ester 0.3	-- C12/14 Fatty Alcohol -- 0.5
2.2 2.8 Citric Acid 0.1	0.1 DMDM Hydantoin 0.2 0.2 Tetra Sodium EDTA 0.1
Fragrance 0.2	0.2 Water Q.S. Q.S. Finished Product Viscosity (cps) 9,380 8,470
Expert User Panel* Lather Amount (Ratio vs. Comparative 1	0.74 Example 1) Lather Creaminess (Ratio vs. Comparative 1 3.0 Example 1)

\*Paired comparison test. Base = 15.

Trained lather panelists lather their hands with the product and evaluate for lather amount and creaminess (Scale -3 to 3).

DETL:

TABLE 3	Comparative Experimental
Experimental Example 1	Example 5 Example 6
Cocamidopropyl Betaine 5.15	5.15 5.15 Sodium Laureth Sulfate 5.8 5.8 5.8
Lauroyl Sarcosinate 0.5	0.5 0.5 Polyquaternium 10 0.1 0.1 0.1
0.3 -- -- C12/14 Fatty Alcohol --	0.5 0.5 Pearlescent Agent Pre-Mix: Glycol
Distearate -- -- 0.25	Sodium Lauryl Sulfate -- -- 0.53
-- 0.17 Lauramide DEA --	-- 0.48 Sodium Sulfate 2.2 2.8 0.73
0.1 DMDM Hydantoin 0.2	0.2 0.2 Tetra Sodium EDTA 0.1 0.1 0.1
0.4 Water Q.S. Q.S. Q.S.	Finished Product Viscosity 9,380 8,470 9,460 (cps)
Expert User Panel.sup.1	Lather Amount (Ratio vs. 1 0.74 1.2 Comparative Example
1) Lather Creaminess (Ratio vs. 1	3.0 1.9 Comparative Example 1) FCAT Clinical
Mildness Testing.sup.2	Difference from Bar Soap -0.34 -0.25 -0.46 Benchmark

.sup.1 Paired comparison test. Base = 15.

Trained lather panelists lather their hands with the product and evaluate for lather amount and creaminess (Scale -3 to 3). .sup.2 A Forearm Controlled Application Technique for Estimating the Mildness of Personal Cleansers, Ertel, K. D., Keswick, B. H.; Bryant, P. B., 10th International Symposium on Bioengineering and the Skin, June 13-15, 1994, Cincinnati, OH.

DETL:

TABLE 4	Preferred Embodiment Comparative
Experimental Example 1	Example 6 Example 7
Cocamidopropyl Betaine 5.15	5.15 5.15 Sodium Laureth Sulfate 5.8 5.8 5.8
Lauroyl Sarcosinate 0.5	0.5 0.5 Polyquaternium 10 0.1 0.1 0.1
0.3 -- -- C12/14 Fatty Alcohol --	0.5 0.5 Zinc Stearate -- -- 1.5
Agent Pre-Mix: Glycol Distearate --	0.25 0.25 Sodium Lauryl Sulfate -- 0.53 0.53
Cocamidopropyl Betaine --	0.17 0.17 Lauramide DEA -- 0.48 0.48
0.73 0.09 Citric Acid 0.1	0.1 0.1 DMDM Hydantoin 0.2 0.2 0.2
0.1 0.1 0.1 Fragrance 0.4	0.4 0.4 Water Q.S. Q.S. Q.S. Viscosity (cps) 9,380
9,460 9400	Expert User Panel.sup.1 Lather Amount (Ratio vs. 1 1.2 1.42
Comparative Ex. 1) Lather Creaminess (Ratio vs. 1	1.9 4.2 Comparative Ex. 1)
Paired Home Use Test.sup.2	Rinse Feel Initially (Low: N/A 1.43 1.00 Draggy, High:
Slippery) Rinse Feel at End of Rinse	N/A 1.14 0.07 (Low: Draggy, High: Slippery)
Amount of Lather N/A	1.27 1.67 Creaminess of Lather N/A 1.07 1.47 Rheology

Panel.sup.3 Stringiness (High: Very 2.45 2.09 1.45 Stringy)

.sup.1 Paired comparison test. Base = 15. Trained lather panelists lather their hands with the product and evaluate for lather amount and creaminess (Scale -3 to 3). .sup.2 Base = 14. Paired Comparison. Panelists rated the products for the above attributes (Scale -3 to 3). .sup.3 Panelists poured product out of shower gel bottle and evaluated for "stringiness". A long string of product hangs from the bottle when there is high viscoelasticity. The test compared each of the three products above. Panelists rated the products 1: least stringy and 3: most stringy.

CLPR:

6. A mild personal liquid cleanser composition as in claim 5, wherein said alkyl ethoxylated sulfate has a average ethoxylation of 3 to 4, said amphoteric is cocamidopropyl betaine, and said N-acyl amino acid surfactant is sodium lauroyl sarcosinate.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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☐ 2. Document ID: US 5866110 A

Entry 2 of 31

File: USPT

Feb 2, 1999

DOCUMENT-IDENTIFIER: US 5866110 A

TITLE: Mild shower gel composition comprising fatty alcohol which imparts improved lathering and thickening properties

BSPR:

The cleaning of skin with surface-active cleansing preparations is the basis for the personal cleansing consumer market world-wide. Many people wash their skin with various surface-active preparations several times a day, with frequent whole body exposure to these compositions (e.g. bathing or showering). Traditionally, consumers were offered these cleansing compositions in the form of a solid "bar" comprised of either alkali earth salts of fatty acids (soap) or mixed synthetic surfactant/soap systems. While these products provide acceptable cleansing of skin and performance properties (e.g. lather), they possess certain properties which give rise to specific consumer negatives in terms of product messiness during use and irritation to skin (e.g. drying). These specific consumer negatives have been partially addressed through the introduction of liquid personal cleanser compositions in the form of shower gels. However, these shower gel products while addressing messiness and mildness needs of the consumer, often fail to meet other consumer performance needs, specifically high lather and soap-like rinse feel. A shower gel composition delivering high mildness, high lather, and rinsing properties more soap-like would be very desirable.

BSPR:

Skin cleansing compositions should lather and rinse, cleanse the skin gently, causing little or no irritation, without drying the skin after frequent routine use. Certain synthetic surfactants and surfactant systems formulated for skin cleansing are particularly mild, however, they possess poor lather performance and slick rinse-feel attributes. Other surfactants and surfactant systems (for example, soap-based system) provide good lather and rinsing performance, but are not exceptionally mild to the skin. Additionally, these formulations require a thickening agent, often some polymeric component, along with high levels of salt to produce consumer acceptable product viscosities. This thickening approach can cause the product to exhibit dramatic viscoelastic properties during use and impact other product performance attributes (e.g. ease of lathering). In addition, polymeric thickeners can be costly and exhibit base odors.

BSPR:

Optimization of any single product attribute (e.g. lather, mildness, rinse feel, viscosity), is a relatively straightforward process. There are numerous combinations of surfactants and other components which can be utilized to generate a product which delivers against any of the aforementioned attributes. The use of known high sudsing anionic surfactants with lather boosters yields acceptable lather volume. Unfortunately, highest sudsing anionic surfactants are, generally, also highest in skin irritation and, hence, worst in clinical mildness. Surfactants that are among the mildest with minimal skin irritation,

such as ammonium lauryl ether (12EO) sulfate (NH<sub>4</sub>AE12S) are extremely poor in lather. These two facts alone make the selection of surfactants for optimization of lather performance, in and of itself, a delicate balancing act and becomes even more complex when the other product attributes must be optimized as well. See, e.g., U.S. Pat. Nos. 4,338,211, Stiros, issued Jul. 6, 1982; 4,310,433, Stiros, issued Jan. 12, 1982; and 4,842,850, Vu, issued Jun. 27, 1989, all of said patents being incorporated herein by reference.

**BSPR:**

The present invention offers a valuable combination of desirable properties to liquid skin-cleansing formulations in terms of product mildness, and lathering.

**BSPR:**

Therefore, one object of this invention is the development of liquid skin-cleansing compositions which exhibit good mildness with good cleaning and improved lathering in terms of both amount and creaminess.

**BSPR:**

A mild liquid skin cleanser composition with improved lathering characteristics, comprising: an alkyl ethoxylated sulfate anionic surfactant having an average degree of ethoxylation of at least about 2.0; an amphoteric surfactant selected from the group consisting of betaine surfactants, imidazoline surfactants, aminoalkanoate surfactants, and iminodialkanoate surfactants, and mixtures thereof; an N-acylamino acid surfactant, or salt thereof; a cationic cellulose ether derivative; and from 0.2 parts to 2.0 parts by weight of a C8 to C20 fatty alcohol.

**BSPR:**

A liquid skin cleanser composition with improved mildness and lathering characteristics, comprising:

**BSPR:**

Foam enhancers are well known in the art. Polyquaternium-10 (an industry term designated by the Cosmetic, Toiletry and Fragrance Association (CFTA) for a polymeric quaternary ammonium salt of hydroxyethyl cellulose reacted with a trimethyl ammonium substituted epoxide is a preferred polymer for foam enhancement. In addition, polyquaternium-10 has also been shown in prior art to provide a skin mildness benefit by reducing irritation potential of the surfactant. Polyquaternium-10 is commercially available from Union Carbide Corp. (Danbury, Conn., U.S.A.) under their UCARE POLYMER JR series of materials, e.g., UCARE POLYMER JR-30M, JR-125, and JR400.

**BSPR:**

The mild personal liquid cleanser hereof is substantially free of alkyl sulfate surfactants since alkyl sulfates are relatively harsh to the skin. It is recognized that there will generally be some alkyl sulfate present as a result of it being present in commercially available alkyl ethoxylated sulfate raw materials. For example, commercially available alkyl (3) ethoxylated sulfate typically contains about 20 parts by weight alkyl sulfate; commercially available alkyl (2) ethoxylated sulfate, about 25 parts to about 40 parts alkyl sulfate. For purposes hereof, substantially free of alkyl sulfate means the compositions hereof should have an alkyl sulfate:alkyl ethoxylated sulfate (average degree of ethoxylation of 2.5 and above) weight ratio of no more than about 0.35, preferably no more than about 0.30, more preferably no more than about 0.25. For alkyl ethoxylated sulfate with an average ethoxylation level of less than 2.5, the ratio should be no more than about 0.40, preferably no more than about 0.35, more preferably no more than about 0.30, most preferably no more than about 0.25. It is preferred that no additional amount of alkyl sulfate be added other than that which occurs inherently with the alkyl ethoxylated sulfate.

**BSPR:**

Narrow range ethoxylates can be used to lower the alkyl sulfate: alkyl ethoxylated sulfate weight ratio. "Narrow range ethoxylates" refer to alkyl ethoxylated sulfate surfactants that have been processed to reduce alkyl sulfates and, optionally, alkyl ethoxylated sulfates outside of the desired range of ethoxylation. The use of narrow range ethoxylates can be used to lower the alkyl sulfate:alkyl ethoxylated sulfate weight ratio, including to ratios as low as about 0.2 or even about 0.1, and less.

## BSPR:

It is also preferred that no other ingredients that are unduly harsh to the skin be added to the mild mild personal liquid cleanser compositions hereof.

## BSPR:

An optional component hereof is a soluble conditioning agent suitable for conditioning hair or skin. Skin conditioning proteolytic enzyme can also be used.

## BSPR:

The skin cleansers herein can contain a variety of nonessential, optional ingredients suitable for improving such compositions in a variety of ways. Such conventional, optional ingredients are well known to those skilled in the art, e.g., antibacterial agents and preservatives such as DMDM Hydantoin, benzyl alcohol, methyl paraben, propyl paraben, 3-isothiazolines (Kathon CG sold by Rohm and Haas), imidazolidinyl urea, methylchloroisothiazolinone, and methylisothiazolinone can be used in amounts of from 1 to 5,000 ppm; final viscosity adjusters such as sodium sulfate, sodium chloride, propylene glycol; suspending agents such as magnesium/aluminum silicate; perfumes, dyes; opacifiers such as ethylene glycol distearate, glycol monostearate, styrene acrylate copolymer, mica, behenic acid, and calcium stearate; sequestering agents such as disodium ethylenediamine tetraacetate; emollients, moisturizers and various other skin treating ingredients such as glycerin; buffers and builders such as citrates and phosphates. If present, such agents individually generally comprise from about 0.01% to about 5% by weight of the composition.

## BSPR:

A body puff or sponge which is made of nylon mesh in the shape of a round sponge (about 4.5 inches in diameter) which when used in conjunction with this invention, is an effective system which enhances the delivery of mild skin cleansing and skin conditioning benefits. Such a puff is manufactured by the sponge factory (Bilange). The puff is comprised of three pieces of extruded tubular netting (scrim) which is folded numerous times to form a soft ball-like sponge, with a nylon rope attached. A suitable system of this type is disclosed in U.S. patent application Ser. No. 08/080,668, filed Jun. 18, 1993, Gordon, et al. Similar sponges can also be used.

## BSPR:

In its method aspect, the present invention comprises a method of washing the skin by contacting the skin with an amount of the cleanser compositions herein which is effective to clean the skin and rinsing the excess cleanser from the skin. An effective amount for any individual will depend upon variable factors such as amount of soil on the skin, type of soil on the skin, level of surfactant in the cleanser composition, etc. Generally, an effective amount will be from about 0.5 to about 7 grams per use. A preferred method of use is with the body sponge implement.

## BSPV:

9. Add sodium lauroyl sarcosinate and EDTA.

## BSTL:

	Parts, by weight
Sulfate 5-7 <u>Sodium Lauroyl Sarcosinate</u>	Cocamidopropyl Betaine 4-6 Sodium Laureth 0.3-0.7 Polyquaternium 10 0.05-0.2 C12/14 Fatty Alcohol 0.25-0.75 Glycol Distearate 0.2-0.4 Sodium Lauryl Sulfate 0.4-0.6 Cocamidopropyl Betaine 0.1-0.3 Lauramide DEA 0.3-0.6 Sodium Sulfate 0.05-1 Citric Acid 0.5-0.2 DMDM Hydantoin 0.2 Tetra Sodium EDTA 0.1 Fragrance 0.2-1.0 Water Q.S. Viscosity (cps) 5,000-11,000.

## BSTL:

	Parts, by weight
Sulfate 5.8 <u>Sodium Lauroyl Sarcosinate</u>	Cocamidopropyl Betaine 5.15 Sodium Laureth 0.5 Polyquaternium 10 0.1 C12/14 Fatty Alcohol 0.5 Glycol Distearate 0.25 Sodium Lauryl Sulfate 0.53 Cocamidopropyl Betaine 0.17 Lauramide DEA 0.48 Sodium Sulfate 0.05-1 Citric Acid 0.05-0.2 DMDM Hydantoin 0.2 Tetra Sodium EDTA 0.1 Fragrance 0.2-1.0 Water Q.S. Viscosity (cps) 5,000-11,000.

## DETL:

TABLE 2 Comparative Example 1 Example 5  
Cocamidopropyl Betaine 5.15 5.15 Sodium  
 Laureth Sulfate 5.8 5.8 Sodium Lauroyl Sarcosinate 0.5 0.5 Polyquaternium 10 0.1  
 0.1 Polyol Alkoxy Ester 0.3 -- C12/14 Fatty Alcohol -- 0.5 Sodium Sulfate 2.2 2.8  
 Citric Acid 0.1 0.1 DMDM Hydantoin 0.2 0.2 Tetra Sodium EDTA 0.1 0.1 Fragrance  
 0.2 0.2 Water Q.S. Q.S. Finished Product Viscosity (cps) 9,380 8,470 Expert User  
 Panel .sup.1 Lather Amount (Ratio vs. Comparative 1 0.74 Example 1) Lather  
 Creaminess (Ratio vs. Comparative 1 3.0 Example 1)  
.sup.1 Paired comparison test. Base = 15.  
 Trained lather panelists lather their hands with the product and evaluate for  
 lather amount and creaminess (Scale -3 to 3).

DETL:

TABLE 3 Comparative Example 1 Example 5  
Cocamidopropyl Betaine 5.15 5.15  
 Example 6 Sodium Lauroyl Sarcosinate 0.5 0.5 0.5  
 5.15 Sodium Laureth Sulfate 5.8 5.8 5.8 Sodium Lauroyl Sarcosinate 0.5 0.5 0.5  
 Polyquaternium 10 0.1 0.1 0.1 Polyol Alkoxy Ester 0.3 -- -- C12/14 Fatty Alcohol  
 -- 0.5 0.5 Pearlescent Agent Pre-Mix: Glycol Distearate -- -- 0.25 Sodium Lauryl  
 Sulfate -- -- 0.53 Cocamidopropyl Betaine -- -- 0.17 Lauramide DEA -- -- 0.48  
 Sodium Sulfate 2.2 2.8 0.73 Citric Acid 0.1 0.1 0.1 DMDM Hydantoin 0.2 0.2 0.2  
 Tetra Sodium EDTA 0.1 0.1 0.1 Fragrance 0.2 0.2 0.4 Water Q.S. Q.S. Q.S. Finished  
 Product Viscosity (cps) 9,380 8,470 9,460 Expert User Panel .sup.1 Lather Amount  
 (Ratio vs. 1 0.74 1.2 Comparative Example 1) Lather Creaminess (Ratio vs. 1 3.0  
 1.9 Comparative Example 1) FCAT Clinical Mildness Testing .sup.2 Difference from  
 Bar Soap -0.34 -0.25 -0.46 Benchmark Rheology Panel .sup.3 Stringiness (High:  
 Very Stringy) 2.45 -- 2.09 .sup.1 Paired  
 comparison test. Base = 15. Trained lather panelists lather their hands with the  
 product and evaluate for lather amount and creaminess (Scale -3 to 3). .sup.2 A  
 Forearm Controlled Application Technique for Estimating the Mildness of Personal  
 Cleaners, Ertel, K.D., Keswick, B.H.; Bryant, P.B., 10th International Symposium  
 on Bioengineering and the Skin, June 13-15, 1994, Cincinnati, OH. .sup.3  
 Panelists poured product out of shower gel bottle and evaluated fo "stringiness".  
 A long string of product hangs from the bottle when there is high  
 viscoelasticity. The test compared each of the three products 1: least string and  
 3: most stringy. The rinse and lather of Example could be further improved with  
 the addition of zinc stearate.

CLPR:

3. A mild personal liquid cleanser composition as in claim 2, wherein said alkyl  
 ethoxylated sulfate has a average ethoxylation of 3 to 4, said amphoteric is  
 cocamidopropyl betaine, and said N-acyl amino acid surfactant is sodium lauroyl  
sarcosinate.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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☐ 3. Document ID: US 5859218 A

Entry 3 of 31

File: USPT

Jan 12, 1999

DOCUMENT-IDENTIFIER: US 5859218 A

TITLE: Preparation of alkylpolyglycosides

DEPR:

The improvement in laundry detergency of the peaked product compared to the  
 original alkyl polyglycoside surfactant can be seen from the following Table 5C.  
 In all cases the peaked products have more cleaning ability than the original  
 regular product, and approach the Neodol 25-7, a linear alcohol ethoxylate, shown  
 in the Table.

DEPR:

The examples above illustrate that significant results are achieved by the  
 alkylpolyglycosides mixtures of the present invention of either Flory or  
 non-Flory distribution binary components, even in the absence of any  
 co-surfactants. While the mixtures may be employed without added surfactants,  
 their use in formulations for various end-use applications, provides for  
 significant, advantageous properties in such formulations employing other  
 co-surfactants. For example, anionic surfactants are generally highly irritative



to the skin. However, when the alkylpolyglycoside mixtures of the present invention are employed in formulations employing anionic surfactants, it was found that the formulated composition was no longer highly irritative to the skin and, accordingly, the alkylpolyglycoside mixture finds special utility in cosmetic, particularly personal care, products and applications, where mild or non-irritative properties are particularly desirable, such as shampoos, foam baths, hand soaps, hair conditioners, and facial cleansers. Thus the alkylpolyglycoside surfactant compositions of the present invention offer formulation ease with good foaming and cleaning power of an anionic surfactant and further offering mildness to skin and eyes. While noting their use with anionic surfactants, the alkylpolyglycoside surfactants of the present invention may stand alone as the primary surfactant or are also compatible with other surfactant types (including non-ionic, cationic and amphoteric), providing improved performance of the formulations therewith.

## DEPR:

The anionic surfactants include any of the surfactants commonly classified as anionic surfactants. These surfactants include the alkali metal, ammonium and magnesium salts of the alpha olefin sulfonates, alkyl sulfonates, alkyl aryl sulfonates, alkyl aryl ether sulfates, alkyl ether sulfates, sulfated alcohol ethoxylates, taurates, petroleum sulfonates, alkyl naphthalene sulfonates, alkyl sarcosinates and the alkyl sulfosuccinates in which the alkyl group is preferably a long chain 8 to 22 carbon atom group and the aryl group is preferably phenyl or naphthyl. Typical surfactants which fall within the above description include sodium lauryl sulfonate, ammonium lauryl sulfonate, ammonium lauryl sulfate, dodecyl benzene sulfonate, sodium lauryl sulfate, sodium lauryl ether sulfate, sodium lauryl myristyl sulfate, diethanolamine lauryl sulfate, ammonium salts of sulfated alcohol ethoxylates, sodium cocoyl isethionate, sodium N-methyl-N-oleoyl taurate, sodium N-methyl-N-cocoyl taurate, triethanolamine lauryl sulfate, disodium monooleamide PEG-2 sulfosuccinate, petroleum sulfonates sodium salt, alkyl naphthalene sodium sulfonates, sodium lauroyl sarcosinate, and sodium alkyl sulfosuccinate.

## DEPR:

In the conventional eye irritation test, the "Polyglycoside" employed in the following examples when tested at 12% active solution, at pH 7.0, the 24-hour score is 8.0 on a scale of 0-110. Typically used anionic surfactants exhibit scores of about 30-35 in this test. In the conventional skin irritation test, at 12% active, pH of 7, the primary skin irritation index is 1.1 on a scale of 0-8. Typical anionic surfactants exhibit scores of about 4-6. Oral toxicity at 50% active, pH of 7, had 0% mortality at 5 grams per kilogram body weight, which is the cut-off point in the test.

## DEPR:

This example illustrates a mild facial cleanser combining a sulfosuccinate surfactant with the Polyglycoside. The oleyl betaine in the product functions as a skin conditioner. The ingredients and preparation can be seen from the following:

## DEPR:

This example illustrates a liquid soap for application to human skin having high foaming and yet is mild to the skin. Two skin conditioners are included. The ingredients and preparation can be seen from the following:

## DEPR:

In this formulation, the Lantrol.RTM. AWS 1692 and the Cosmedia.RTM. Polymer HSP-1180 functions as skin conditioners.

## DEPR:

In personal care products for application to human skin, such as a liquid soap above, it has recently become important to include in such soaps materials generally referred to as antimicrobial agents. The term "antimicrobial" as used herein is intended to encompass generally antibacterial, antiviral, antigerminicidal agents and the like. It is important that such materials when employed in personal care products for use by humans be approved by the FDA (Food and Drug Administration). A commercially available antimicrobial agent is 5-chloro-2-(2,4-dichlorophenoxy) phenol, "Triclosan", manufactured by Ciba Geigy. Such antimicrobial agents when employed are added to the liquid soap in an amount of from about 0.25 to about 1% by weight, more desirably about 0.3 to about 0.5%.

A wide variety of antimicrobial agents have been described and are available for various end-use applications. "Cation DDC", a recent antibacterial agent very effective against bacteria with high resistance, finds use in disinfection in restaurants and food processing centers. "Lebon 15" is a high molecular weight amphoteric surfactant that exhibits germicidal properties. Statutory Invention Registration H269 describes germicidal quaternary ammonium halides useful in disinfectant or sanitizing cleaner compositions. German published Application DE 3,316,250 A describes N-alkylated 1-amino-1-desoxy-D-fructo-pyranose antimicrobial agents effective against fungi and bacteria. U.S. Pat. No. 4,900,721 describes disinfectants for skin and mucous membranes, which may contain one or more antimicrobial agents, such as quaternary ammonium compounds, phenols, biguanides and various others. U.S. Pat. No. 3,886,277 describes the use of 5,7-dichloro-8-hydroxy quinolines for controlling dandruff and in the background discussion describes a wide variety of substances exhibiting bacteriostatic and fungistatic properties including phenols, hexachlorophene, quaternary ammonium halides, and various sulfur-containing compounds (thio-bis compounds).

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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☐ 4. Document ID: US 5856282 A

Entry 4 of 31

File: USPT

Jan 5, 1999

DOCUMENT-IDENTIFIER: US 5856282 A

TITLE: Silicone compositions

BSPR:

The present invention relates to silicone-containing compositions and to use thereof in various household products such as personal care products, laundry and household cleaners, bleaching compositions and the like. In particular, it relates to silicone-containing lipophilic compositions based on flavorants, perfumes, coolants or antimicrobial agents as lipophile and which display improved residuality, impact and/or efficacy on surfaces treated therewith, for example teeth, dentures, skin, hair, laundry, dishware, working surfaces and the like. In addition, it relates to silicone-containing bleach compositions which additionally contain bleach-sensitive ingredients such as perfumes, flavorants and the like and which display improved stability.

BSPR:

Examples of surfactants suitable for use herein include C.sub.6 -C.sub.18 alkyl sulfates and alkyl ether sulfates ethoxylated with from about 0.5 to about 20 moles of ethylene oxide per mole; anionic sulfonates inclusive of C.sub.5 -C.sub.20 linear alkylbenzene sulfonates, alkyl ester sulfonates, C.sub.6 -C.sub.22 primary or secondary alkane sulfonates, C.sub.6 -C.sub.24 olefin sulfonates, sulfonated polycarboxylic acids, alkyl glycerol sulfonates, fatty acyl glycerol sulfonates, and mixtures thereof; anionic carboxylates inclusive of primary and secondary C.sub.6 to C.sub.18 alkyl carboxylate, ethoxy carboxylate and polyethoxy polycarboxylate surfactants having an average degree of ethoxylation of from about 0 to about 10; C.sub.5 -C.sub.17 sarcosinates such as sodium cocoylsarcosinate; sodium lauroyl sarcosinate (Hamposyl-95 ex W. R. Grace); condensation products of ethylene or propylene oxide with fatty acids, fatty alcohols, fatty amides, polyhydric alcohols (e.g. sorbitan monostearate, sorbitan oleate), alkyl phenols (e.g. Tergitol) and polypropyleneoxide or polyoxybutylene (e.g. Pluronic); alkylpolysaccharides as disclosed in U.S. Pat. No. 4,565,647; amine oxides such as dimethyl cocamine oxide, dimethyl lauryl amine oxide and cocoalkyldimethyl amine oxide (Aromox); polysorbates such as Tween 40 and Tween 80 (Hercules); sorbitan stearates, sorbitan monooleate, etc; cationic surfactants such as cetyl pyridinium chloride, cetyl trimethyl ammonium bromide, di-isobutyl phenoxy ethoxy ethyl-dimethyl benzyl ammonium chloride and coconut alkyl trimethyl ammonium nitrate.

BSPR:

Highly preferred herein from the view point of lipophile solubilization are the nonionic surfactants. One class of nonionic surfactant suitable for use herein are those having the general formula: ##STR5## in which R.sub.1 is an alk(en)yl or alk(en)yl phenyl group having 8 to 22, preferably 10 to 20 carbon atoms ion

BSPR:

The present invention relates to personal cleansing and/or cosmetic compositions containing enduring perfumes which are less likely to irritate skin and which provide efficient and long lasting perfume benefit, even after rinsing.

BSPR:

Perfume in personal cleansing and cosmetic products provides olfactory aesthetic benefit and/or serves as a signal of cleanliness. These are especially important functions of these personal care products. Personal care products generally include "rinse-off" products, such as soaps, liquid soaps, shampoos, hair conditioners, etc., which are applied to, e.g., skin or hair and then rinsed off from the skin or hair, and "leave-on" products, such as skin moisturizers, sun screen products, deodorants, hair sprays, mousse, etc., which are applied and are normally allowed to remain on, e.g., skin or hair.

BSPR:

Continuous efforts are made to find improvements in both perfume delivery effectiveness and longevity on the body (e.g., skin and hair). During a cleansing process, a substantial amount of perfume in the personal cleanser compositions is lost with the rinse water and in the subsequent drying. On the other hand, some products, especially leave-on and cosmetic products can leave a considerable amount of material, including perfume material, on the body. It is extremely important that any material left on the body provide the maximum effect with the minimum amount of material, and that the material be as safe and non-irritating as possible.

BSPR:

People skilled in the perfume art, usually by experience, have some knowledge of some particular perfume ingredients that are "substantive" and/or non-irritating. Substantive perfume ingredients are those odorous compounds that effectively deposit on skin or hair in the cleaning process and are detectable on the subsequently dried skin or hair by people with normal olfactory acuity. The knowledge of what perfume ingredients are substantive is spotty and incomplete.

BSPR:

The object of this invention is to provide personal cleansing compositions containing enduring perfumes which are effectively retained and remain on the skin or hair for a long lasting aesthetic benefit with minimum amount of material, and not lost and/or wasted in the cleaning and drying steps. It is also an object to provide perfumes that are non-irritating insofar as that is possible.

BSPR:

Some of these cleansing compositions are meant to be used and then rinsed off. The enduring perfume compositions are desirable for such personal cleansing compositions that are intended to be rinsed off, since the enduring perfume compositions deposit extremely efficiently. In another aspect, enduring perfume compositions are used in other personal treatment compositions, including cosmetics, skin treatment compositions, and/or cleansing compositions that are meant to be left on the skin, or simply wiped off, thereby leaving a substantial amount of material on the skin. The enduring perfume compositions are extremely desirable for such personal treatment compositions since they require minimal material to provide long lasting effects even when the skin is in contact with the water, as when swimming. Personal treatment compositions such as deodorants, perfumes, colognes, suntan lotions, skin softening lotions, etc., which are meant to leave relatively large amounts of material on the skin, are especially improved by use of these enduring perfume compositions, since they minimize the amount of material in contact with the skin.

BSPR:

The present invention also relates in one aspect to personal treatment compositions, e.g., those selected from the group consisting of: deodorants; antiperspirants; skin lotions; suntan lotions; perfumes, and colognes, all of which are normally applied to one, or more, parts of the body and incompletely removed, said personal treatment compositions containing an effective amount of said enduring perfume compositions.

BSPR:

Thus, when a perfume composition which is composed of the above named ingredients and, optionally, a level, less than about 70%, of ingredients having a B.P. of about 250.degree. C. or higher and a ClogP of about 3 or higher, is used in a liquid personal cleansing composition, the perfume is very effectively deposited on skin or air, and remains substantive after the rinsing and drying steps. Also, surprisingly, these same perfume compositions are very mild to skin and are relatively non-irritating, even on leave-on products.

BSPR:

Table 1 gives some non-limiting examples of the other enduring perfume ingredients that can be used with the above named perfume ingredients to form enduring perfume compositions useful in laundry detergent compositions of the present invention. The enduring perfume compositions of the present invention contain at least about 3 different enduring perfume ingredients, more preferably at least about 4 different enduring perfume ingredients, and even more preferably at least about 5 different enduring perfume ingredients. Furthermore, the enduring perfume compositions of the present invention contain at least about 60 wt. % of enduring perfume ingredients, preferably at least about 70 wt. % of enduring perfume ingredients, more preferably at least about 80 wt. % of enduring perfume ingredients, and even more preferably at least about 85 wt. % of enduring perfume ingredients, the level of ingredients having a B.P. of at least about 250.degree. C. and a ClogP of more than about 3 being at a level of less than about 70%, preferably less than about 65%, and more preferably less than about 60%, so that the composition with only those ingredients is not an enduring perfume. Personal cleansing compositions of the present invention contain from about 0.001% to about 10%, preferably from about 0.005% to about 6%, more preferably from about 0.01% to about 4%, and even more preferably from about 0.01% to about 1%, of an enduring perfume composition. Hair care and topical skin care compositions that are not normally rinsed off can contain from 0.001% to about 50%, preferably from about 0.001% to about 15%, more preferably from about 0.005% to about 6%, most preferably from about 0.01% to about 4%, and yet more preferably from about 0.01% to about 1%, of said enduring perfume compositions. The high levels are associated mainly with body perfumes, such as fine fragrances, eau de toilette, eau de cologne, etc.

BSPR:

The present invention, especially in the aspect relating to personal cleansing compositions that are normally rinsed, like shampoos and personal skin cleansers, comprises from about 0.01% to about 95%, preferably from about 5% to about 85%, more preferably from about 3% to about 30%, even more preferably from about 5% to about 22% of a surfactant system. This surfactant system comprises anionic, nonionic, cationic, and/or zwitterionic type surfactants as described hereinbefore. For non-shampoo surfactant systems the surfactant system typically comprises at least one surfactant selected from the group consisting of soap, acylglutamates, alkyl sarcosinates, alkylpolyethyleneglycol sulfates, alkylglyceryl ether sulfonates, and/or acyl isethionates.

BSPR:

The present compositions are used in a conventional manner for cleaning hair, controlling dry skin on the scalp, and to provide olfactory aesthetic benefit. The compositions hereof can also be effective for cleaning the skin (e.g., the body in general, including the underarm and crotch areas). An effective amount of the composition, typically from about 1 g to about 20 g of the composition, for cleaning hair or other region of the body, is applied to the hair or other region that has preferably been wetted, generally with water, and then rinsed off. Application to the hair typically includes working the composition through the hair such that most or all of the hair is contacted with the composition. After the rinse step, the wet hair is normally dried, e.g., with an electric hair dryer.

BSPR:

The present compositions are used in a conventional manner for cleaning the skin and/or the body, and to provide olfactory aesthetic benefit. An effective amount of the composition, typically from about 1 g to about 15 g of the composition, is applied to the body that has preferably been wetted, generally with water. Application to the body includes dispensing of the composition onto the hand, onto the body, or onto a washing implement, e.g., wash cloth, sponge, etc., and typically includes working the composition with the hands to develop lather. The lather can stand on the body for a length of time or can be rinsed immediately

with water. Once the product is rinsed from the body the washing procedure can be repeated.

BSPR:

The enduring perfumes of the present invention can be formulated into a wide variety of product types which are not normally removed by rinsing, including hair conditioner, hair spray, hair gel, hair tonic, mousse, hair curler, hair straightener, deodorant, antiperspirant, skin lotion, skin moisturizer, skin softening lotion, suntan lotion, sun screen lotion, sunless tanning composition, skin bleaching composition, perfume, cologne, topical pharmaceutical skin care composition, e.g., anti-acne composition, non-steroidal anti-inflammatory composition, steroidal anti-inflammatory composition, antipruritic composition, anesthetic composition, antimicrobial composition, and the like. The additional components required to formulate such products vary with product type and can be routinely chosen by one skilled in the art. The following is a description of some of these compositions and additional components.

BSPR:

The hair care compositions of the present invention can comprise a carrier, or a mixture of such carriers, which are suitable for application to the hair. The carriers are present at from about 0.5% to about 99.5%, preferably from about 5.0% to about 99.5%, more preferably from about 10.0% to about 98.0%, of the composition. As used herein, the phrase "suitable for application to hair" means that the carrier does not damage or negatively affect the aesthetics of hair or cause irritation to the underlying skin.

BSPR:

The topical cosmetic and pharmaceutical compositions of the present invention can comprise a carrier. The carrier should be "cosmetically and/or pharmaceutically acceptable", which means that the carrier is suitable for topical application to the skin, has good aesthetic properties, is compatible with the copolymers of the present invention and any other components, and will not cause any untoward safety or toxicity concerns.

BSPR:

The carrier can be in a wide variety of forms. For example, emulsion carriers, including, but not limited to, oil-in-water, water-in-oil, water-in-oil-in-water, and oil-in-water-in-silicone emulsions, are useful herein. These emulsions can cover a broad range of viscosities, e.g., from about 100 cps to about 200,000 cps. These emulsions can also be delivered in the form of sprays using either mechanical pump containers or pressurized aerosol containers using conventional propellants. These carriers can also be delivered in the form of a mousse. Other suitable topical carriers include anhydrous liquid solvents such as oils, alcohols, and silicones (e.g., mineral oil, ethanol, isopropanol, dimethicone, cyclomethicone, and the like); aqueous-based single phase liquid solvents (e.g., hydro-alcoholic solvent systems); and thickened versions of these anhydrous and aqueous-based single phase solvents (e.g., where the viscosity of the solvent has been increased to form a solid or semi-solid by the addition of appropriate gums, resins, waxes, polymers, salts, and the like). Examples of topical carrier systems useful in the present invention are described in the following four references all of which are incorporated herein by reference in their entirety: "Sun Products Formulary" Cosmetics & Toiletries, vol. 105, pp. 122-139 (December 1990); "Sun Products Formulary", Cosmetics & Toiletries, vol. 102, pp. 117-136 (March 1987); U.S. Pat. No. 4,960,764 to Figueroa et al., issued Oct. 2, 1990; and U.S. Pat. No. 4,254,105 to Fukuda et al., issued Mar. 3, 1981.

BSPR:

The carriers of the skin care compositions can comprise from about 50% to about 99% by weight of the compositions of the present invention, preferably from about 75% to about 99%, and most preferably from about 85% to about 95%.

BSPR:

Preferred cosmetically and/or pharmaceutically acceptable topical carriers include hydro-alcoholic systems and oil-in-water emulsions. When the carrier is a hydro-alcoholic system, the carrier can comprise from about 1% to about 99% of ethanol, isopropanol, or mixtures thereof, and from about 1% to about 99% of water. More preferred is a carrier comprising from about 5% to about 60% of ethanol, isopropanol, or mixtures thereof, and from about 40% to about 95% of water. Especially preferred is a carrier comprising from about 20% to about 50%

of ethanol, isopropanol, or mixtures thereof, and from about 50% to about 80% of water. When the carrier is an oil-in-water emulsion, the carrier can include any of the common excipient ingredients for preparing these emulsions. In fine fragrances, the carrier is typically ethanol at levels of from about 50% to about 85%, whereas in colognes, the carrier level is even higher, e.g., from about 80% to about 95%.

BSPR:

This gelling agent offers significant benefits when used in an antiperspirant gel stick. The gelling agent of the present invention exhibits unexpected benefits, e.g., decreased residue upon application to the skin, increased hardness and better aesthetics, relative to a similar composition having either of the two gellants alone. In fact, these gellants in combination are more effective than either alone so that the overall level of gelling agent within the composition can be reduced while maintaining such desirable stick characteristics.

BSPR:

The liquid base matrix of antiperspirant stick compositions of the present invention is formed by combining the gelling agent with a liquid base material. As used herein, the term "liquid" refers to materials which are liquids at ambient conditions and the term "liquid base material" includes all liquids within the composition. It is important that the liquid base material be of a type, and used at a level sufficient to solubilize the gelling agent when heated, to permit substantially uniform mixing of the antiperspirant active into the heated solution at the mixing temperature, and form a stick when cooled to ambient temperature. The liquid base material should be compatible with the gelling agent so that the mixture of the two remains homogeneous and does not phase separate during manufacturing and so that the finished product remains homogeneous and does not phase separate at ambient conditions over the normal shelf-life which may be upwards of one year. Furthermore, the liquid base materials are typically selected to provide aesthetic benefits, such as emolliency, low tack or minimized visible residue, without significant interference with the effectiveness of the antiperspirant active component. Lastly, the particular liquid base material should be safe for application to human skin.

BSPR:

A wide variety of additional components can be employed in the hair care and topical skin compositions herein. Non-limiting examples include the following:

BSPR:

The compositions of the present invention, especially the topical skin care compositions, can comprise a safe and effective amount of a pharmaceutical active. The phrase "safe and effective amount", as used herein, means an amount of an active high enough to significantly or positively modify the condition to be treated, but low enough to avoid serious side effects (at a reasonable benefit/risk ratio), within the scope of sound medical judgement. A safe and effective amount of the pharmaceutical active will vary with the specific active, the ability of the composition to penetrate the active through the skin, the amount of composition to be applied, the particular condition being treated, the age and physical condition of the patient being treated, the severity of the condition, the duration of the treatment, the nature of concurrent therapy, and like factors.

BSPR:

Still other useful sunscreens are those disclosed in U.S. Pat. No. 4,937,370, to Sabatelli, issued Jun. 26, 1990; and U.S. Pat. No. 4,999,186, to Sabatelli et al., issued Mar. 12, 1991; these two references are incorporated by reference herein in their entirety. The suncreening agents disclosed therein have, in a single molecule, two distinct chromophore moieties which exhibit different ultra-violet radiation absorption spectra. One of the chromophore moieties absorbs predominantly in the UVB radiation range and the other absorbs strongly in the UVA radiation range. These suncreening agents provide higher efficacy, broader UV absorption, lower skin penetration and longer lasting efficacy relative to conventional sunscreens. Especially preferred examples of these sunscreens include those selected from the group consisting of 4-N,N-(2-ethylhexyl)methylaminobenzoic acid ester of 2,4-dihydroxybenzophenone, 4-N,N-(2-ethylhexyl)methylaminobenzoic acid ester with 4-hydroxydibenzoylmethane, 4-N,N-(2-ethylhexyl)methylaminobenzoic acid ester of

2-hydroxy-4-(2-hydroxyethoxy)benzophenone, 4-N,N-(2-ethylhexyl)methylaminobenzoic acid ester of 4-(2-hydroxyethoxy)dibenzoylmethane, and mixtures thereof.

BSPR:

A variety of additional components can be incorporated into the non-rinsed compositions herein. Non-limiting examples of these additional components include vitamins and derivatives thereof (e.g., ascorbic acid, vitamin E, tocopheryl acetate, retinoic acid, retinol, retinoids, and the like); low pH thickening agents (e.g. polyacrylamide and C.sub.13-14 isoparaffin and laureth-7, available as Sepigel from Seppic Corporation; polyquaternium and mineral oil, available as Salcare SC92, from Allied Colloids; crosslinked methyl quaternized dimethylaminomethacrylate and mineral oil, available as Salcare SC95 from Allied Colloids; resins; gums and thickeners such as xanthan gum, carboxymethyl cellulose, hydroxymethyl cellulose, hydroxyethyl cellulose, alkyl-modified hydroxyalkyl celluloses (e.g. long chain alkyl modified hydroxyethyl celluloses such as cetyl hydroxyethylcellulose), and magnesium aluminum silicate; cationic polymers and thickeners (e.g., cationic guar gum derivatives such as guar hydroxypropyltrimonium chloride and hydroxypropyl guar hydroxypropyltrimonium chloride, available as the Jaguar C series from Rhone-Poulenc; polymers for aiding the film-forming properties and substantivity of the composition (such as a copolymer of eicosene and vinyl pyrrolidone, an example of which is available from GAF Chemical Corporation as Ganex.RTM. V-220); suspending agents such as ethylene glycol distearate and the like; preservatives for maintaining the antimicrobial integrity of the compositions; skin penetration aids such as dimethylsulfoxide (DMSO), 1-dodecylazacycloheptan-2-one (available as Azone from the Upjohn Co.) and the like; antioxidants; chelators and sequestrants; and aesthetic components such as fragrances, colorings, essential oils, skin sensates, astringents, skin soothing agents, skin healing agents and the like, nonlimiting examples of these aesthetic components include panthenol and derivatives (e.g. ethyl panthenol), pantothenic acid and its derivatives, clove oil, menthol, camphor, eucalyptus oil, eugenol, menthyl lactate, witch hazel distillate, allantoin, bisababol, dipotassium glycyrrhizinate and the like. Other useful actives include skin bleaching (or lightening) agents including but not limited to hydroquinone, ascorbic acid, kojic acid and sodium metabisulfite. Actives which are especially useful for hair care compositions include anti-dandruff actives such as zinc pyrithione, octopirox, selenium disulfide, sulfur, coal tar, and the like, and hair curling and/or straightening actives as are well known in the art.

BSPR:

The hair care and skin care compositions of the present invention are used in conventional ways to provide the desired benefit appropriate to the product such as hair styling, holding, cleansing, conditioning and the like for hair care compositions and benefits such as moisturization, sun protection, anti-acne, anti-wrinkling, artificial tanning, analgesic, and other cosmetic and pharmaceutical benefits for skin care compositions. Such methods of use depend upon the type of composition employed but generally involve application of an effective amount of the product to the hair or skin, which can then be allowed to remain on the hair (as in the case of spray, mousse, or gel products), or allowed to remain on the skin (as in the case of the skin care compositions). By "effective amount" is meant an amount sufficient to provide the benefit desired. Preferably, mousse, and gel products are applied to wet or damp hair prior to drying and styling of the hair. After such compositions are applied to the hair, the hair is dried and styled in the usual ways of the user. Hair sprays are typically applied to dry hair after it has already been dried and styled. Cosmetic and pharmaceutical topical skin care compositions are applied to and rubbed into the skin.

BSPL:

II. Topical Skin Care Compositions

BSPL:

Additional components useful in formulating these topical compositions are further described below.

BSPL:

Method of Using Non-Rinsed Hair and Skin Care Compositions

BSPC:

**WEST**[Help](#)[Logout](#)[Main Menu](#)[Search Form](#)[Posting Counts](#)[Show S Numbers](#)[Edit S Numbers](#)**Search Results - Record(s) 1 through 5 of 5 returned.****1. Document ID: US 5945394 A**

Entry 1 of 5

File: USPT

Aug 31, 1999

DOCUMENT-IDENTIFIER: US 5945394 A

TITLE: Heavy duty liquid detergent compositions comprising salts of .alpha.-sulfonated fatty acid methyl esters and use of .alpha.-sulphonated fatty acid salts to inhibit redeposition of soil on fabric

**BSPR:**

The nonionic surfactant is typically an amide, alkyl n-methyl glucamine, amine oxide, C.sub.8 -C.sub.18 fatty alcohol ethoxylates, ethoxylated methyl esters, nonyl phenyl ethoxylates or mixtures thereof.

**BSPR:**

The detergent compositions of the present invention also comprise from about 1% to about 50%, preferably from about 2% (more preferably 8 to 20%) to about 40% by weight of a foam stabilizing surfactant selected from the group consisting of amides, amine oxides, ethoxylated fatty acids, C.sub.8 -C.sub.18 fatty alcohol ethoxylates, alkyl polyglycosides, alkyl n-methyl glucamides, nonyl phenyl ethoxylates, methyl ester ethoxylates and mixtures thereof.

**BSPR:**

This invention further provides a method for cleaning substrates, such as fibers, fabrics, hard surfaces, skin, hair etc., by contacting said substrate, with a detergent composition comprising detergent enzyme and one or more anionic, nonionic, or cationic surfactants wherein said detergent composition contains an enzyme performance-enhancing amount of polyhydroxy fatty acid amide, typically at least about 1% by weight, of the composition, in the presence of a solvent such as water or water-miscible solvent (e.g., primary and secondary alcohols). Agitation is preferably provided for enhancing cleaning. Suitable means for providing agitation include rubbing by hand or preferably with use of a brush, sponge, cloth, mop, or other cleaning device, automatic laundry washing machines, automatic dishwashers, etc.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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**2. Document ID: US 5674829 A**

Entry 2 of 5

File: USPT

Oct 7, 1997

DOCUMENT-IDENTIFIER: US 5674829 A

TITLE: Stable aqueous glutaraldehyde solutions containing sodium acetate and a nonionic detergent

**ABPL:**

The solution does not require an activator prior to use and is not a skin



## CLPV:

sodium acetate trihydrate in an amount that, with said nonyl phenyl ethoxylate, serves to buffer the solution at said pH range;

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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## 3. Document ID: US 5653965 A

Entry 3 of 5

File: USPT

Aug 5, 1997

DOCUMENT-IDENTIFIER: US 5653965 A

TITLE: Low VOC, sunscreen spray composition containing a hydrophobic, film-forming polymer

## BSPR:

Stable microemulsions/microdispersions containing UV protectants and film-forming, water-insoluble polymers are available as UV protectant formulations for protecting UV labile active ingredients. These systems are based on N-alkyl pyrrolidones and long chain alkylolefin grafted polyvinyl pyrrolidones, and a UV protectant [e.g. octyl dimethyl para amino benzoate (Escalol.RTM. 507) hydroxy methoxy benzophenone (Escalol.RTM. 567), etc.]. However, there is a need for "pour on" compositions, to be used on animals, that will produce excellent wetting and spreading on hydrophobic surfaces with very little skin penetration, and which will offer high stability for the dispersed active ingredients, and, preferably including a film-former that would encapsulate the active ingredient.

## DEPR:

Example 4.4 illustrates the use of a specific emulsifier, Tagat I at a minimum concentration at emulsifier/polymer ratio=5.0 to solubilize the resin in water free from alcohol. Other compositions (4.1, 4.2, and 4.3) are in ethanol-water medium. The compositions shown in Table 4 can be used as matrices to load the appropriate active ingredients which are previously microemulsified in a similar solvent system with optimized emulsifiers. For example, it was found by an independent experiment that Igepal CO 630 (nonyl phenyl ethoxylate with 9 EO) solubilized Escalol 507 (octyl dimethyl PABA) in about 1:1 ethanol-water medium at a minimum concentration at surfactant/active ingredient about 2.0. An attempt to introduce the preemulsified Escalol 507 in the matrices 4.1, 4.2 and 4.3 produced single phase stable systems. Composition 1.1 in Table i is such an example [18 grams matrix 4.2 was mixed with 2 grams Escalol 507 and the mixture was titrated with Igepal CO 630 in small increments until the mixture became homogeneous, and the final composition was computed]. By a similar procedure mixed Escalol systems could also be microemulsified. The Escalol 507 (8 grams) in Example 1.1 can be replaced with a mixture of containing 6 grams Escalol 507 and 2 grams Escalol 567 (4-methoxy-2-hydroxy benzophenone). The composition containing mixed Escalols was also stable and produced single phase systems on dilution to 1/10 and 1/100 with deionized water. It was not possible to introduce Escalol 567 by itself in the matrix at a reasonable concentration, without using exorbitant levels of emulsifiers.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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## 4. Document ID: US 5098472 A

Entry 4 of 5

File: USPT

Mar 24, 1992

irritant. It is also stable for a period of up to 6 months at temperatures of 25.degree. C. when undiluted. When diluted further with water to differing concentrations, it is suitable for use as a sterilising, cleaning, disinfecting, antiseptic, subcutaneously injectable or preservative end use composition. These diluted compositions are stable for a period of up to 12 months and also require no activation prior to use.

**BSPR:**

Various stabilisers are currently added to glutaraldehyde solutions just before use by the user to bring the pH into the optimally active range for glutaraldehyde. However, these stabilisers have been found to be skin irritants which, despite the efficacy of glutaraldehyde as a broad spectrum biocide, decreases its desirability as a cleaning and/or sterilizing and/or disinfecting agent. Also, notwithstanding the presence of the stabilizer, glutaraldehyde solutions presently only have a shelf life of two to four weeks at a pH of 7-8.5.

**DEPR:**

Human patch tests on skin, intermittent skin contact tests, inhalation tests and eye contact tests were conducted. It was found that although eye contact must be avoided, the product is safe at 2%, 1% and less in concentration.

**DEPR:**

The 2% composition of Example 2, without the dye, is suitable as a subcutaneous injectable composition when diluted to a concentration of 0.10% m/v to 0.05% m/v with sterile water and prepared without using any heat. The composition is sterilized by filtration. The purpose of this injectable composition is as a precaution against infection after skin trauma, typically by medical professionals who are injured while dealing with infected patients. The composition is locally injected around the skin lesion and provides some protection against infection of cuts and wounds by contaminated needles and other medical instruments.

**DEPR:**

It is an advantage of the invention as described in the above Examples that the solutions provide an effective cleaner and disinfectant in one solution. Since the solutions have a substantially stable neutral pH, they are non-corrosive and user-friendly for employee and householder use. Also, the 2% or less compositions are stable for a period of 12 months at storage room temperatures (25.degree. C.). In addition, a solution having a concentration of glutaraldehyde of less than 2% is not a skin irritant nor does it require an activator prior to use. Their biocidal effects are very important, as evidenced by the tests set out below. Also the 2% concentrate is sporicidal and is therefore useful for sterilising medical instruments.

**DETL:**

PRIMARY SKIN IRRITATION TESTS OF A  
COMPOSITION OF EXAMPLE 5 BELOW ON RABBITS

Pine Glutaraldehyde (0.44% m/v) Mean for intact skin at 4 hours for 3 rabbits: Edema: 0.333 Erythema: 0.000 Mean for abraded skin at 4 hours for 3 rabbits: Edema: 0.888 Erythema: 0.000 Mean for intact skin at 72 hours for 3 rabbits: Edema: 0.000 Erythema: 0.000 Mean for abraded skin at 72 hours for 3 rabbits: Edema: 0.222 Erythema: 0.333 1.776 IRRITATION INDEX = 1.776 4 = 0.444 Lemon Glutaraldehyde (0.2% m/v) Mean for intact skin at 4 hours for 3 rabbits: Edema: 0.000 Erythema: 0.000 Mean for abraded skin at 4 hours for 3 rabbits: Edema: 0.888 Erythema: 0.000 Mean for intact skin at 72 hours for 3 rabbits: Edema: 0.000 Erythema: 0.000 Mean for abraded skin at 72 hours for 3 rabbits: Edema: 0.000 Erythema: 0.000 0.888 IRRITATION INDEX = 0.888 4 = 0.222

**CLPV:**

a 19-21% m/v nonyl phenyl ethoxylate non-ionic detergent;

**CLPV:**

sodium acetate trihydrate in an amount that, with said nonyl phenyl ethoxylate, serves to buffer the solution at said pH range;

**CLPV:**

a 7-9% m/v nonyl phenyl ethoxylate nonionic surfactant

DOCUMENT-IDENTIFIER: US 5098472 A

TITLE: Preservative composition

BSPR:

The diverse and colourful history of creosote preservatives utilization and benefits has been marred only by inherent problems of odour, skin irritation and related product handling problems.

BSPR:

The present invention enables creosote to be used as a preservative for lignocellulosic substrates and other substrates in simple and complex formulations, treatments and/or unique wide spectrum or highly specific complementary preservative roles substantially minimising the disadvantages of black, wet, bleeding, staining, tarry, oily, crudding surfaces, skin irritation, odour irritation, flammability, pollution and high energy costs. The potential benefits inherent in a cleaner creosote based preservative/preservation treatment are far reaching and so diverse as the variations in methods of treatment and preservative manipulation immanent in the invention.

BSPR:

Complaints on the handling difficulties associated with high temperature creosote (HTC) treated products were voiced in Australia shortly after the introduction of HTC in 1696. Many poles bled profusely in hot weather and developed tenacious, greasy or viscous tarry glossy surfaces termed "crud". HTC caused tactile skin sensitisation, irritation and burning on many individuals handling the treated timber. Other countries have had similar experience with creosote treated products. Despite extensive work in various parts of the world to elucidate the mechanism of bleeding and crud formation researchers have failed to produce a commercially acceptable improved creosote, and the problem persists.

BSPR:

Surfactants which may be used in the preservative compositions of the invention are e.g. nonyl phenyl ethoxylates, alkanolamides, soya lecithins, ethoxylated sorbitan esters, alkyl and glycol esters, sulfonated castor oils, amine ethoxylates, acrylic copolymers, wetting agents and fluorine derivatives.

BSPR:

The compositions of the invention evidence much reduced skin irritation when freshly treated, timber sections are non-greasy, much safer to handle and dry rapidly in the open atmosphere. Reduced bleeding occurs in storage and the surface of the PEC treated timber dries to an aesthetically pleasing "powdery"-dry rustic appearance with further exposure, irrespective of high surface temperatures encountered up to 65.degree. C. No creosote exudes from the treated timber surface after the drying reaction is complete.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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5. Document ID: US 4897386 A

Entry 5 of 5

File: USPT

Jan 30, 1990

DOCUMENT-IDENTIFIER: US 4897386 A

TITLE: Synergistic compositions

## BSPR:

The compositions of this invention may be used for protecting the host against infestations of Ixodid and Sarcoptic pests by application of the compositions themselves or in a diluted form in known fashion, as a dip, a spray, a dust, a paste, cream, gel, foam, shampoo or grease, a pressure-pack, an impregnated article, or a pour-on formulation. Dips are not applied per se, but the animals are immersed in a dipping bath containing the dip wash. Sprays may be applied by hand or by means of a spray race or arch or automatic treadle. Dusts may be distributed over the animals by means of a powder gun by hand application from suitable containers or incorporated in perforated bags attached to trees or rubbing bars. Pastes, foams, creams, gels, shampoos and greases may be applied manually or distributed over the surface of an inert material against which animals rub and transfer the material to their skins. Pour-on formulations are dispensed as a unit of liquid of small volume on to the backs of animals such that all or most of the liquid is retained on the animals.

## DEPR:

Ethylan KEO is an emulsifying agent which is a nonyl phenyl ethoxylate condensate with an ethylene oxide average chain length of 9.5 mols, supplied by Lankro Chemicals Ltd.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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Terms	Documents
nonyl phenyl ethoxylate and (skin or topical ot demal)	5

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5

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KWIC

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L26 ANSWER 16 OF 38 USPATFULL

TI Cleansing and disinfecting method

PI US 5620527 19970415

AB . . . applications, and as decontaminating agents. Specific uses include skin cleansing and disinfecting, treatment for exposure to toxic

plants such as **poison ivy**, treatment for exposure to industrial and agricultural chemicals such as herbicides and pesticides,

and cleansing and disinfecting surfaces and sensitive. . .

SUMM . . . foot and dandruff. There is also a need for topical products to

give relief to those suffering from insect stings, **poison ivy** and **poison oak**. In the surgical field, a need exists for soaps and impregnated sponges for cleansing and disinfecting the skin of surgeons. . .

DETD . . . thereof. Examples of suitable nonionic surfactants are linear alkoxylates such as "TRITON X-100" (manufactured by Rohm and Haas); an alkylphenol **ethoxylate** such as "ICONOL OP-10" (manufactured by BASF Wyandotte Corp.); and polyoxypropylene-polyoxyethylene block copolymer, such as "PLURONIC F68LF" (manufactured by BASF. . .

DETD . . . foam, cellulose or cotton, which had been previously impregnated with a 20% by weight solution in isopropanol of the alkylphenol **ethoxylate** surfactant "ICONOL OP-10". The isopropanol solvent was allowed to evaporate. The resultant pad or sponge, was activated by being wet. . .

CLM What is claimed is:

. . . 7. The method of claim 5, wherein said nonionic surfactant is selected from the group consisting of linear alkoxylates, alkylphenol **ethoxylate**, and polyoxypropylene-polyoxyethylene block copolymer.

improved skin feel and residue characteristics together with excellent moisturizing, emolliency, rub-in and absorption characteristics.

## DEPR:

This emulsion is useful for topical application to the skin to provide an artificial tan.

## DEPR:

This emulsion is useful for topical application to the skin to provide protection from the harmful effects of ultraviolet radiation.

## DEPR:

This emulsion is useful for application to the skin as a moisturizer.

## DEPL:

Topical Analgesic Composition

## DEPW:

d) Sodium lauroyl sarcosinate

## CLPR:

1. Personal treatment composition selected from the group consisting of: leave-on hair care composition and leave-on skin care composition, said personal treatment composition containing an effective amount, of from about 0.001% to about 50% by weight, of enduring perfume composition wherein said enduring perfume composition contains at least 70% of enduring perfume ingredients having a ClogP.gtoreq.3.0 and a boiling point of .gtoreq.250.degree. C. selected from the group consisting of: Allyl cyclohexane propionate; Ambrettolide; Amyl benzoate; Amyl-cinnamate; Amyl cinnamic aldehyde; Amyl cinnamic aldehyde dimethyl acetal; iso-Amyl salicylate; Aurantiol; Benzophenone; Benzyl salicylate; para-tert-Butyl cyclohexyl acetate; iso-Butyl quinoline; beta-Caryophyllene; Cadinene; Cedrol; Cedryl acetate; Cedryl formate; Cinnamyl cinnamate; Cyclohexyl salicylate; Cyclamen aldehyde; Dibydro isojasmonate, Diphenyl methane; Diphenyl oxide; Dodecalactone; iso E super; Ethylene brassylate; Ethylmethyl phenyl glycidate, Ethyl undecylenate; Exaltolide; Galaxolide; Geranyl anthranilate; Geranyl phenyl acetate; Hexadecanolide; Hexenyl salicylate; Hexyl cinnamic aldehyde, Hexyl salicylate; alpha-Irone; Lilial (p-t-bucinal), Linalyl benzoate; 2-Methoxy naphthalene; Methyl dihydrojasnone; gamma-n-Methyl ionone; Musk indanone; Musk-ketone, Musk tibetine; Myristicin; Oxa-hexadecanolide-10; Oxa-hexadecanolide-11; Patchouli alcohol; Phantolide; Phenyl ethyl benzoate; Phenylethylphenylacetate; Phenyl heptanol; Phenyl hexanol; alpha-Santalol; Thibetolide; delta-Undecalactone; gamma-Undecalactone; Vetiveryl acetate; yara-yara; Ylangene; and mixtures thereof, said enduring perfume composition containing at least three different enduring perfume ingredients.

## CLPR:

3. The composition of claim 1 wherein the skin care composition is selected from the group consisting of deodorant, antiperspirant, skin lotion, skin moisturizer, skin softening lotion, suntan lotion, sun screen lotion, sunless tanning composition, skin bleaching composition, topical pharmaceutical skin care composition, perfume, and cologne.

## CLPR:

4. The composition of claim 3 wherein the topical pharmaceutical skin care composition is selected from the group consisting of anti-acne composition, non-steroidal anti-inflammatory composition, steroidal anti-inflammatory composition, antipruritic composition, anesthetic composition, and antimicrobial composition.

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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☐ 6. Document ID: US 5849310 A

Entry 6 of 31

File: USPT

Dec 15, 1998

DOCUMENT-IDENTIFIER: US 5849310 A

TITLE: Personal treatment compositions and/or cosmetic compositions containing enduring perfume

C. Hair Care and Topical Skin Care Compositions Which Are Not Normally Rinsed  
(Removed)

## BSPV:

a. Alkyl phenol ethoxylates. The polyethylene oxide condensates of alkyl phenols, e.g., the condensation products of alkyl phenols having an alkyl group containing from about 6 to 12 carbon atoms in either a straight chain or branched chain configuration, with ethylene oxide, the said ethylene oxide being present in amounts equal to 10 to 60 moles of ethylene oxide per mole of alkyl phenol. The alkyl substituent in such compounds can be derived from polymerized propylene, diisobutylene, octane, or nonane, for example.

## BSPV:

c. Fatty alcohol and fatty acid ethoxylates. The condensation product of aliphatic alcohols having from 8 to 18 carbon atoms, in either straight chain or branched chain configuration with ethylene oxide, e.g., a coconut alcohol ethylene oxide condensate having from 10 to 30 moles of ethylene oxide per mole of coconut alcohol, the coconut alcohol fraction having from 10 to 14 carbon atoms. Other ethylene oxide condensation products are ethoxylated fatty acid esters of polyhydric alcohols (e.g., Tween 20-polyoxyethylene (20) sorbitan monolaurate).

## DEPR:

The products provide excellent in-use and efficacy benefits including cleansing and lathering together with improved mildness and skin conditioning (hydration, suppleness, etc.), and especially long lasting perfume benefit.

## DEPR:

The composition display skin penetration of the salicylic acid as well as improved skin feel and residue characteristics and is useful for the treatment of acne.

## DEPR:

A topical analgesic composition is made by combining the following ingredients utilizing conventional mixing techniques.

## DEPR:

The compositions display skin penetration of the ibuprofen active as well as improved skin feel and residue characteristics together with excellent moisturizing, emolliency, rub-in and absorption characteristics.

## DEPR:

This emulsion is useful for topical application to the skin to provide an artificial tan.

## DEPR:

This emulsion is useful for topical application to the skin to provide protection from the harmful effects of ultraviolet radiation.

## DEPR:

This emulsion is useful for application to the skin as a moisturizer.

## DEPC:

Topical Analgesic Composition

## DEPV:

d) Sodium lauroyl sarcosinate

Full	Title	Citation	Front	Review	Classification	Date	Reference	Claims	KWIC	Image
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☐ 7. Document ID: US 5792737 A

Entry 7 of 31

File: USPT

Aug 11, 1998